

Astrobiology for Teachers – An On-line NAI Collaboration

Doris Daou

*Virtual Planetary Laboratory
California Institute of Technology, Infrared Processing and Analysis Center
1200 E. California Blvd, Suite# 223
Mail Stop: 220 – 06
Pasadena, CA 91125
USA
daou@ipac.caltech.edu*

Timothy F. Slater

*Department of Astronomy
University of Arizona
USA*

Erika G. Offerdahl

*Department of Astronomy
University of Arizona
USA*

Tom Olien

*Department of Astronomy (Visiting Scholar)
University of Arizona
USA*

Edward E. Prather

*Department of Astronomy
University of Arizona
USA*

A continuing challenge for scientists is to keep K-12 teachers informed about new scientific developments. Over the past few years, this challenge has increased with new research findings coming from the field of astrobiology. In addition to trying to keep abreast of these new discoveries, K-12 teachers must also face the demands of the content and pedagogical goals imposed by state and national science education standards. Furthermore, many teachers lack the scientific content knowledge or training in current teaching methods to either create their own activities or to appropriately implement new teaching materials that are designed to meet the standards. There is a clear need for special courses designed to increase the scientific knowledge of K-12 science teachers. The content of this poster presents a collaborative effort of the Virtual Planetary Laboratory and the University of Arizona to offer a graduate-level, Internet-based, distance learning course for middle and high school teachers to provide them with expertise regarding cutting edge astrobiology concepts and NSES-based instructional strategies. In support of this course, a suite of innovative, classroom-ready, lessons for grades 5-12 that emphasize an active engagement instructional strategy and focus on the recent discoveries in the field of astrobiology have been developed. Upon completion of this course, teachers demonstrate a more complete and robust understanding of current scientific concepts in the field of astrobiology, incorporate more pedagogically sound and

inquiry based activities within the classroom, and will have received three graduate level credits.